

Increasing the color fastness of silk by means of synthetic resins. K. M. Mackay. *Shibai* 1940, No. 12, 21-1; *Chem. Ztg.*, 64, No. 7-8, 108 (1941).—The substantivity and power neutral-dyeing acid dyes produced on silk fast colors in light and medium shades, but less-fast colors to dark shades. Fastness can be improved by the product DTU (a condensation product of HCHO with dicyandiamide). The method increases fastness to washing, does not decrease the light fastness, and leaves the shade almost unchanged. Treating rayon fabrics with the DTU product decreases their light fastness.

W. R. Henn

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R001032520014-3"

PROCESSES AND PROPERTIES INDEX

New rapid method for degumming oils. K. M. Mac
kay and V. I. Makov. *Tobolsk*, 1941, "No. 3
-309." *Chem. Zentral.* 1942, II, 1897. - The best degumming
agent appears to be olive-oil soap, which is very sol.
turns stable emulsions, and can be readily removed by
washing. The degumming properties appear to be due to
the saponification of the medium rather than to detergent power.
In order to hasten the boiling-off process, the H ion concn
should remain as nearly const. as possible during the
operation. A buffer mixt. of NaClO₄ and NaHSO₄, is
recommended for this purpose. Three tables give details
of the use of chemicals, results of the various tests, and the
strength of the soap and wett. of various fabrics. The
advantages of the process depend on the rapidity of the
operation at low temp. and with low concns. of soap.
Louis E. Wiss

SEARCH & DATA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R001032520014-3"

MARKUZE, I.M.

There's only one theory of textile fiber dyeing (From "Melliand
Textilberichte"). Tekst.prom. 15 no.12:52-55 D '55. (MLRA 9:3)
(Dyes and dyeing)

MARKUZE, K.M., inzhener.

Methods of determining the shrinkage of artificial silk fabrics.
Standartizatsiya. no.5:30-35 8-0 '56. (MIRA 10:1)

1. Starshiy nauchnyy sotrudnik Tsentral'nogo nauchno-issledovatel'skogo instituta shelka.
(Rayon)

KHARKHAROV, Aleksandr Aleksandrovich; KALONTAROV, Iosif Yakubovich;
MARKUZE, K.M., retsenzent; CHEKALIN, M.A., retsenzent;
VERBITSKAYA, Ye.M., red.; BATYREVA, G.G., tekhn. red.

[Reactive dyes and their use in the textile industry] Aktivnye
krasiteli i ikh primenenie v tekstil'noi promyshlennosti. Mo-
skva, Rostekhizdat, 1961. 131 p. (MIRA 15:7)
(Dyes and dyeing) (Textile chemistry)

Markuze, K.R.

MARKUZE, K.R., professor (Voronezh, Universitetskaya ul., d.11, kv.20)

On A.I.Sirts' article "Application of the Pavlovian doctrine in
surgery." Vest.khir. 79 no.7:94-95 Jl '57. (MIRA 10:10)
(SURGERY) (NERVOUS SYSTEM)

MARKUZE, L.S.

Use of theoretical hodographs in interpreting the materials of
seismic prospecting in the area of the Pripyat downwarping. Razved.
i prom. geofiz. no.36:3-7 '60. (MIRA 13:12)
(Pripyat Valley—Seismic prospecting)

POLAND / Chemical Technology. Chemical Products and H-28
Their Application. Food Industry.

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 2850.

Author : Markuze, S.

Inst : ~~Not given.~~

Title : Reducing Groups and the Spoilage of Dry Milk.

Orig Pub: Roczn. Panstw. zakl. hig., 1956, 7, No 5,
395-404.

Abstract: In order to study the spoilage in dry milk, the reducing ability (RA) of dry whole milk has been determined before and after the milk was stored and packaged under various conditions. The RA of milk having a higher moisture content is increased upon storage. The increase in RA of dry milk already takes place at an early stage of the reaction between protein and sugar without

Card 1/2

MARKUM, S.M., kandidat meditsinskikh nauk

Vascular tonus and vascular reflexes in hypertension. Terap.
arkh. 26 no.4:47-56 Jl-Ag '54. (MLRA 7:11)

1. Iz fakultetskoy terapeuticheskoy kliniki (dir. prof. Z.I.Malkin)
Kazanskogo meditsinskogo instituta.

(HYPERTENSION, physiology,
blood vessel tonus & reflexes)
(BLOOD VESSELS, in various diseases,
hypertension, vasc. tonus & reflexes)

MARKUZE, S.M.

MARKUZE, S.M.

Dynamics of vascular rate in heart diseases. Klin.med., Moskva 28
no.5:59-65 May 50. (CLML 19:4)

1. Of the Faculty Therapeutic Clinic (Director -- Prof. Z.I.Malkin),
Kazan' Medical Institute, Kazan'.

MARKUZE, S.M., kand.med.nauk

Device for measuring the velocity of the pulse wave. Kaz. mei. zhur.
no.4:108-110 Jl-Ag '61. (MLA 15:2)

1. Kafedra fakul'tetskoy terapii (zav. - prof. Z.I.Malkin) Kazanskogo
meditsinskogo instituta. (SPHYGMOGRAPH)

MARKUZE, S.M., kand.med.nauk

Clinical significance of the rate of pulse wave spreading.
Kaz.med.zhur. no.5:18-20 S-0 '62. (MIRA 16:4)

1. Kafedra fakul'tetskoy terapii (zav. - prof. Z.I.Malkin)
Kazanskogo meditsinskogo instituta.
(PULSE) (ARTERIOSCLEROSIS) (HYPERTENSION)

MARKUZE, V.K.

Seasonal variations in the occurrence of male and female individuals
of the lake frog (*Rana ridibuna* Pall.). Nauch. dokl. vys. shkoly;
biol. nauki no.3:48-50 '61. (MIRA 14:7)

1. Rekomendovana kafedroy zoologii Moskovskogo gosudarstvennogo
pedagogicheskogo instituta im. V.I.Lenina.
(KAMYZYAK DISTRICT--FROGS) (SEX (BIOLOGY))

MARKUZE, V.K.

Seasonal changes in the occurrence of male and female representatives
of water and grass snakes. Nauch. dokl. vys. shkoly; biol. nauki
no.1:29-31 '62. (MIRA 15:3)

1. Rekomendovana kafedroy zoologii Moskovskogo gosudarst-
vennogo pedagogicheskogo instituta im. V.I. Lenina.
(KAMZYAK REGION—SNAKES)

MARKUZE, V.K.

Economic importance of piscivorous birds, reptiles and amphibians
for fish spawning and rearing farms of the Volga Delta. Nauch.
dokl. vys. shkoly; biol. nauki no. 2:39-42 '64. (MIRA 17:5)

1. Rekomendovana kafedroy zoologii Moskovskogo gosudarstvennogo
pedagogicheskogo instituta im. V.I.Lenina.

MARKUZE, V.K.

Frog (*Rana ridibunda* Pall.) and its role in fish spawning
and rearing farms of the Volga Delta. Zool. zhur. 43 no.10:
1511-1516 '64. (MRA 17:12)

1. Department of Zoology, V.I. Lenin Pedagogical College of
Moscow.

MARAKH, V.K.

Significance of chum salmon in the first spawning and
rearing farms at the "Dipas" fishery, Biol. M. L. Acad. SSSR, 69
no. 3;127-128 May - 1964. "MLR. 17:?"

MARKUZE, V.Y.

Ecology of grebes as related to the fish culture in the Volga Delta.
Ornitologija no.7:244-257 '65. (MIRA 18:10)

MARKUZ, M.I., aspirant

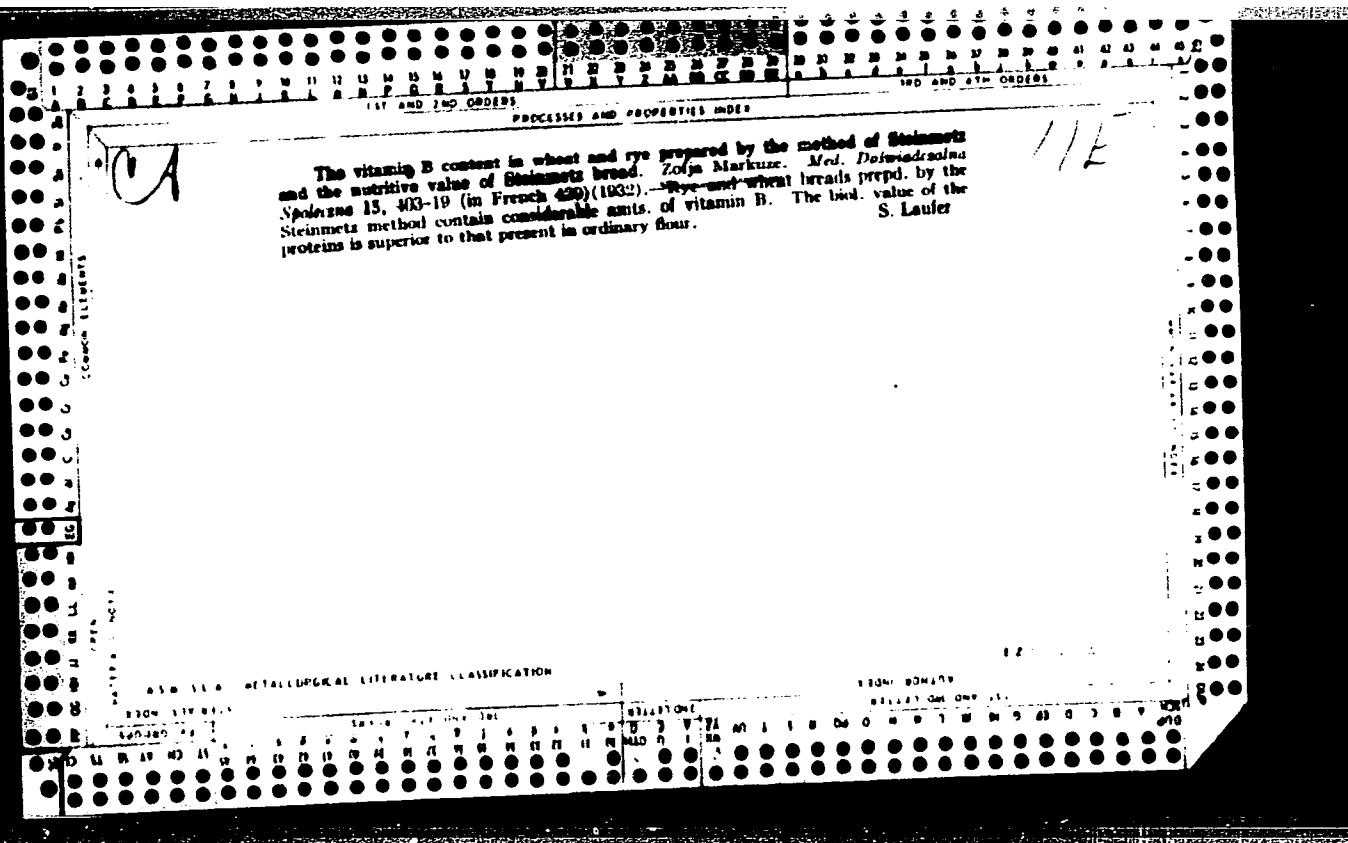
Adjusting traverse lines by the method of conditions with
additional unknowns. Sov. vys. achen. zav.; geod. i aerof.
no. 256-69 '64. (MIKA 179)

I. Moskovskiy institut stroyitel'stva geodezii, aerofotosyemki
i kartografii.

MARKUZE, Yu.I., student IV kursa Geofaka

Some problems in the adjustment of large triangulation net-
works by I.IU.Pranis-Pranovich's method. Trudy MIIGAIK no.36:
109-116 '59. (MIRA 13:4)

1. Studencheskoye nauchnoye obshchestvo Moskovskogo instituta
inzhenerov geodezii, aerofotos"zemki i kartografi".
(Triangulation)



Decolorization of the hair of rats on certain synthetic diets. Z. Markuse *Med. Biologodziedza i Spoleczna* 19, 270. (1967) Decolorization of the hair of rats was observed when the animals had been placed on any one of the 3 following diets: (A) sucrose, purified casein (I), Sterichalk salt mixt. (II), vitamins A and D (cod-liver oil) (III) and B₁ (autoclaved yeast) and B₂ (rice hulls). A replacement of part of the sugar by fats (sunflower or rape seed oil or lard) induced a still greater decoloration. (B) wheat starch, I, butter fat, II, III, standard B₁ prep., and B₂ (milk, autoclaved yeast) and (C) wheat roll, I, III and B₂ vitamins (as brewers' yeast, no salt mixt.) was given to this diet. Causes for this phenomenon could not be given to C. T. Jochnowski

11B

CA

A modification of the Phillips and Van Slyke method for the specific gravity determination of the blood, etc. Z. Markusz (Lodz, Poland). Roczniki Poniemieckiego Zakladu Hig. L. 140-4(1951). -A simplification in the prepn of the CuSO₄ soln was used. This soln. was prep'd by dissolving 170 g. of CuSO₄.5H₂O in 1 l. H₂O and filtering the soln. The resulting clear soln. was stable for several months and had a d. of 1.100 at 17. 27°. Solns. of various d. were prep'd. by dilg. the above soln. with H₂O. Blood for this detn. was treated with oxalates to prevent clotting. L. J. Potrowski

Mark 1-2-E D.O.F.M.
P.O. 1
✓ "Mamchi C content of samples of Zebra Mackerel 77
(Ostrea Bodianus Zywnowski) from Lake Uvildy - 1972
N.Y. (Add). Results: Mamchi Zebulon Hg. 2
112-387 (1971) (English summary). The Mamchi C content
of 17 samples of different sashimi preparations varied from 8
to 20 mg. % and of the juices 8 to 33 mg. % L.I.P.

100% KODZE / Z.
Ascorbic acid content of liquid milk. Z. Markusz.
 Rocznik Państwowego Zakładu Hig. i Sanit. Gospodarki Rolnej
 Sci. Abstr. 16, 604.—The av. ascorbic acid content of 80
 milk samples collected in Łódź was 16 mg/l. K.L.C.

Marcin Zofca

Calcium, phosphorus, and iron contents of different ox fractions of wheat and rye flours. Zofia Markiewicz and Maria Szachowka. Rocznik Państwowej Zakłady 11/12, 5, 70-84 (1954) (English summary). Anal. Ca, total P, and Fe contents of different extracts of wheat and rye flours produced during 1952 were determined. The contents of these components increased in accordance with the percentage extract and, for coarse flour, there was a relatively greater increase in total P content than in Ca. The mean contents of anal. Fe, Ca, and total P in mg./100 g. dry substance, were: wheat flour 0-50%: 660, 1.5, 24; 160, 0-72%; 620, 2.4, 29; 167; 50-72%: 1400, 3.5, 41; 382; 27; 143; 0-82%: 1360, 3.0, 40; 273; 0-97%: 1530, 4.0, 23; 143; 44, 406.

Alina S. Suwczak

Markule, Zofia

✓ Method for the determination of malic acid in foods
Zofia Markule (Polskiego Zjedlaniu Iim. Warszaw)
Korczakowska 7/11 Warsaw Poland, 02-3410 (0) 8461
summary). A simple and rapid method for the determination of
malic acid in foods is described. The method is based on
the acid hydrolysis of a sample (~ 1 g), 0.2 M N HCl, chlorination
with $Pb(OH)_4$ or $Zn(OH)_4$, and reaction with
 $BrCN$ and alkaline. Samples with a known malic acid
content, and 5-10 g, are placed in a tube. After an addition of
100 ml. of H_2O the sample is heated for 1 min. at 100°, and then
for an addition 2 ml. with 25 ml. of N HCl. After cooling
the sample is neutralized to pH 7.0 with 1 ml. NaOH by
using bromothymol blue as indicator. The vol. is brought to
100 ml., and the sample is centrifuged for 5-10 min. at 2000
r.p.m. A portion of the supernatant fluid is cooled, by
evaporation over a H_2O bath, and the vol. is adjusted to 20 ml.
with H_2O . Addition of 2 ml. of $Pb(OAc)_4$ and 10 ml. of phenol
phosphate buffer follows. Sample is mixed and chlorinated
Clear colorless or light yellow solution is followed by reaction with
 $BrCN$ and the color determined by means of a colorimeter. The
recovery of malic acid is 92%. The method was used
with whole, ripe, green, and ripe dried plums, pears,
pears, apples, and dry yeast. Samples of fruits give a good
agreement between chem. and microanalytical analysis.
The method is simple, rapid, and accurate.

MARKUZE, ZOFIA

Presence of α -ketoglutaric acid in milk. SUMITI ACHARYA
(Pennsylvania State Univ., State College). *J. Dairy Res.* 39, 641 (1956). Approx 15 mos. α -Ketoglutaric Acid was found in pasteurized skim milk. A. H. Johnson

Reducing groups and the nonfatty deterioration of milk powder. Zofia Markuze. *Roczniki Państwowego Zakładu Hig.* 7, 393-404 (1950) (English summary). The reducing power of high moisture (6-8%) milk powder increased on storage in the early stages of the protein-sugar reaction before any signs of brown discoloration appeared. Loss of sloy, was accompanied by increased reducing power, but the reverse did not always hold. Detn. of reducing power is proposed as a useful test for the evaluation of the keeping qualities of milk powder, particularly when dealing with a high-moisture or with an improperly packaged product.

Alina S. Szczerbiak

POLAND/Chemical Technol. of Food Products and their
Applications in Industry.

11-25

Ref. No.: Ref. Thur-His... N 2 1959, 6279.

Author : Morluzo, E. Pis.

Inst. : Inst. of Nutr. and Diet.

Title : Determination of Vitamin PP in Various. I. Application
of Modified M. r's method.

Orig. Pub. : Roczn. Inst. Nauk. i. ..., 1958, 9, 1-2, 177-182.

Abstract: The modified M. r's method produced results similar
to that obtained by Morluzo's methods, when the
content of vitamin PP in grain, flour, bread, peas,
milk and tomato products was determined. See Winkler,
1956, 73509 for part I. - G."

Card : 1/1

124

MARKUZE, Zofia, prof. (Warsaw)

Browning and reducing power of sugar solutions heated with amino acids. Acta chimica Hung 23 no.1/4:247-254 '60.
(EEAI 10:9)

1. Department of Food Control, State Institute of Hygiene, Warsaw.

(Sugar) (Cysteine) (Amino acids) (Glutamic acid)
(Glucose) (Lysine) (Lactose) (Fructose)

MARKUZE, Zofia

Influence of metal traces on browning of glucose and lysine solutions.
Roczn panstw zakl hig 14 no 1:65-70 '63.

1. Laboratory for Testing Food and Articles of Common Consumption,
State Institute of Hygiene, Warsaw.

MARKUZE, Zofia

Chromatographic separation of tocopherols in certain edible oils
and margines. Rocznik Państw. Zakładów Nauk. no. 4:435-442 '64.

1. Laboratory of Testing Food and Articles of Common Consumption,
State Institute of Hygiene, Warsaw. Head: [prof. dr] M. Nikonorow.

MARKUZIN, N.P.

SCIENCE/CHEMISTRY - Physical chemistry

Recd. 1/2

Pub. 147 - 14/26

Authors :

Storozkin, A. V., and Markuzin, N. P.

Title :

Study of vapor pressures of saturated and unsaturated KCl solutions
in hydrochloric acid

Periodical :

Zhur. fiz. khim. 29/1, 111-119, Jan 1955

Abstract :

The vapor pressure of saturated and unsaturated KCl solutions in hydrochloric acid was experimentally investigated at 25°C. The form of the solubility isotherm and the curves representing the total and partial vapor pressures of saturated tertiary KCl-HCl-H₂O solutions was established on the basis of the thermodynamic theory of tertiary saturated solutions. It was found that the solution with minimum vapor pressure evaporates without any change in its composition.

Institution :

The A. A. Zhdanov State University, Leningrad

Submitted :

May 19, 1954

Periodical : Zhur. fiz. khim. 29/1, 111-119, Jan 1955

Card 2/2 Pub. 147 - 14/26

Abstract : The values of total and partial pressures for saturated and unsaturated ternary KCl solutions are tabulated. Eight USSR references (1948-1954). Tables; diagrams

MARKUZIN, N. P., Master Chem Sci— (miss) "Investigating the liquid-liquid-steam equilibrium within a system $(C_1H_5)_2N - C_6H_5OH - H_2O$." Leningrad, 1957, 17 pp.
(Leningrad State University im.A.A. Zhdanov) 100 copies
(KL, № 41, 1957, p. 106)

MARKUIN, N.P.

Distr: 4E4J

Three-layered solutions of triethylamine-phenol-water,
N. P. Markuin and A. V. Storozhenko, *Vestn. Leningrad.
Univ. II*, No. 10, Ser. Fiz., Khim., No. 2, 123-47 (1957).
The liquid-liquid-vapor and liquid-vapor equil. of Et₃N-
PhOH-H₂O were studied experimentally at 15° and 35°,
and extensive diagrams, tables, and math. equations are
given. The binodal curves of the system at 18° are dis-
cussed in the light of phase effect theory; their S-shape is not
due to contamination. The change in partial and total
vapor pressure w/ soln. compnz. was studied, and agreed
with thermodynamic theory. *Malcolm Anderson*

MARKUZIN, N. P.

AUTHORS: Storonkin, A. V., Markuzin, N. P. 54-1-10/17

TITLE: Investigation of the Equilibrium Liquid - Vapor in the
System $(C_2H_5)_3N - H_2O$
(Issledovaniye ravnovesiya zhidkost' - par v sisteme
 $(C_2H_5)_3N - H_2O$)

PERIODICAL: Vestnik Leningradskogo Universiteta Seriya Fizika
i Khimiia (Nr 1), 1958, Nr 4,

ABSTRACT: Voluminous experimental material has recently been collected concerning the formation of compounds in vapors of different systems. (Ref. 1-4) If, however, the formation of compounds in the computation of partial pressure is not taken into account, wrong results are frequently obtained. These errors become particularly noticeable if determination of partial pressure is carried out by the method of the inert gas jet. The existence of compounds and vapors can be ascertained by comparing the results obtained by determining general vapor pressure, by the method of the inert gas jet (P) and the static (P) pressure. In this case the quantity

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Investigation of the Equilibrium Liquid - Vapor in the
System $(C_2H_5)_3N - H_2O$

54-1-10/17

$$P' = \sum_{i=1}^n P'_i$$

is not equal to the actual significance of general gas pressure and will differ from the quantity P . This method based upon interaction in vapors was described with particular thoroughness in the papers by Simons and Gill'debrand (Ref. 4), Khorstman (Ref. 5) Fisher (Ref. 6) and Verevskiy with his collaborators (Refs. 7-10). The association of the molecules of one and the same component was thoroughly investigated. Quantities of general and partial gas pressure solutions of triethylamine in water are estimated by the method of the inert gas jet and by the static method at temperatures of 15° and 35°C. By comparing the data for general gas pressure obtained by the above mentioned methods it was found that in vapors of the

$(C_2H_5)_3N - H_2O$ - system a combination of

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Investigation of the Equilibrium Liquid - Vapor in the
System $(C_2H_5)_3N - H_2O$ 54-1-10/17

triethylamine and water, and at 15°C an association of triethylamine molecules takes place. The method of calculating real values of partial pressures of components is described for cases where combinations formed in the gaseous phase are known. The most authentic values of partial pressures for the $(C_2H_5)_3N \cdot H_2O$ -system at 15° and 35° C.

There are 4 figures, 7 tables, and 16 references, 6 of which are Slavic.

SUBMITTED: April 11, 1957

AVAILABLE: Library of Congress

1. Vapor-Compounds 2. Vapor pressure 3. Theoretical analysis

Card 3/3

S/054/61/000/001/006/008
B117/B203

AUTHORS: Storonkin, A. V., Markuzin, N. P.

TITLE: Isothermal evaporation of liquid phases in the system
 $(C_2H_5)_3N - C_6H_5OH - H_2O$ at 15 and $35^{\circ}C$

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i
khimii, no. 1, 1961, 75-86

TEXT: The authors studied the isothermal evaporation of liquid phases in the system $(C_2H_5)_3N - C_6H_5OH - H_2O$ with the aid of equations derived earlier (Ref. 1: A. V. Storonkin, ZhFKh, 32, 2347, 1958; Ref. 2: A. V. Storonkin. ZhFKh, 28, 2021, 1954). The following was stated: If the system is in the non-critical state the total vapor pressure during open evaporation of ternary solutions separating into layers decreases, irrespective of the phase transitions involved ($dP < 0$). If the open evaporation of the first phase ($m^{(2)} = 0, m^{(3)} = 0, dP < 0$) proceeds according to the phase process (19) $L_1 \rightarrow L_2 + v(dm^{(1)} < 0, dm^{(2)} > 0)$, then $D < 0$ and

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Isothermal evaporation of liquid...

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$B > 0$; but if it proceeds according to the phase process (20)
 $L_1 \rightarrow v(dm^{(1)} < 0, dm^{(2)} = 0)$, then $D < 0$ and $B = 0$. Hence, if the evaporation of the second phase ($m^{(1)} = 0, m^{(3)} = 0, dP < 0$) proceeds according to the phase process (21) $L_2 \rightarrow L_1 + v(dm^{(1)} > 0, dm^{(2)} < 0)$, then $A < 0$ and $C > 0$; but if it proceeds according to the phase process (22) $L_2 \rightarrow v(dm^{(1)} = 0, dm^{(2)} < 0)$, then $A = 0$ and $C > 0$. In the formulas given,

$$\begin{aligned} A &= (x_2^{(3)} - x_2^{(2)}) (y_2^{(2)} - y_2^{(3)}) - (x_1^{(3)} - x_1^{(2)}) (y_1^{(2)} - y_1^{(3)}) = \\ &= (x_1^{(3)} - x_1^{(2)}) (y_2^{(2)} - y_2^{(3)}) (\operatorname{tg} \beta - \operatorname{tg} \gamma); \end{aligned} \quad (23)$$

$$\begin{aligned} B &= (x_1^{(1)} - x_1^{(3)}) (y_1^{(1)} - y_1^{(3)}) - (x_1^{(3)} - x_1^{(1)}) (y_1^{(1)} - y_1^{(3)}) = \\ &= (x_1^{(1)} - x_1^{(3)}) (y_2^{(1)} - y_2^{(3)}) (\operatorname{tg} \alpha - \operatorname{tg} \epsilon); \end{aligned} \quad (24)$$

$$\begin{aligned} C &= (x_1^{(1)} - x_1^{(3)}) (y_2^{(2)} - y_2^{(3)}) - (x_1^{(3)} - x_1^{(1)}) (y_1^{(2)} - y_1^{(3)}) = \\ &= (x_1^{(1)} - x_1^{(3)}) (y_2^{(2)} - y_2^{(3)}) (\operatorname{tg} \alpha - \operatorname{tg} \gamma); \end{aligned} \quad (25)$$

$$\begin{aligned} D &= (x_1^{(3)} - x_1^{(2)}) (y_2^{(1)} - y_2^{(3)}) - (x_1^{(2)} - x_1^{(3)}) (y_1^{(1)} - y_1^{(3)}) = \\ &= (x_1^{(3)} - x_1^{(2)}) (y_2^{(1)} - y_2^{(3)}) (\operatorname{tg} \beta - \operatorname{tg} \epsilon); \end{aligned} \quad (26)$$

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Isothermal evaporation of liquid...

L_1 and L_2 = symbols for liquid phases; v = symbol for vapor, α = angle of inclination of the node VL_1 ; β = angle of inclination of the node VL_2 :

γ = angle of inclination of the tangent on the branch of the separation isotherm corresponding to the second phase; ε = angle of inclination of the tangent on the branch of the binodal curve corresponding to the first phase. The angles α , β , γ , and ε are shown in Fig. 1. Formulas (19)-(22) show that the isothermal evaporation of liquid phases can be predicted by determining the signs of A , B , C , and D on the basis of data with respect to the coexistent phases and the relations (23)-(26). The signs of A , B , C , and D can be written down as follows (on the basis of investigations carried out):

на участке Qx	$A > 0, C < 0$,	в точке N	$B = 0, D < 0$,	(41)
в точке x	$A > 0, C = 0$,	на участке NP	$B > 0, D < 0$,	
на участке xT	$A > 0, C > 0$,	в точке P	$B = 0, D < 0$,	
в точке T	$A = 0, C > 0$,	на участке PW	$B < 0, D < 0$,	
на участке TK	$A < 0, C > 0$,	в точке W	$B = 0, D < 0$,	
на участке RN	$A < 0, D < 0$,	на участке WK	$B > 0, D < 0$,	

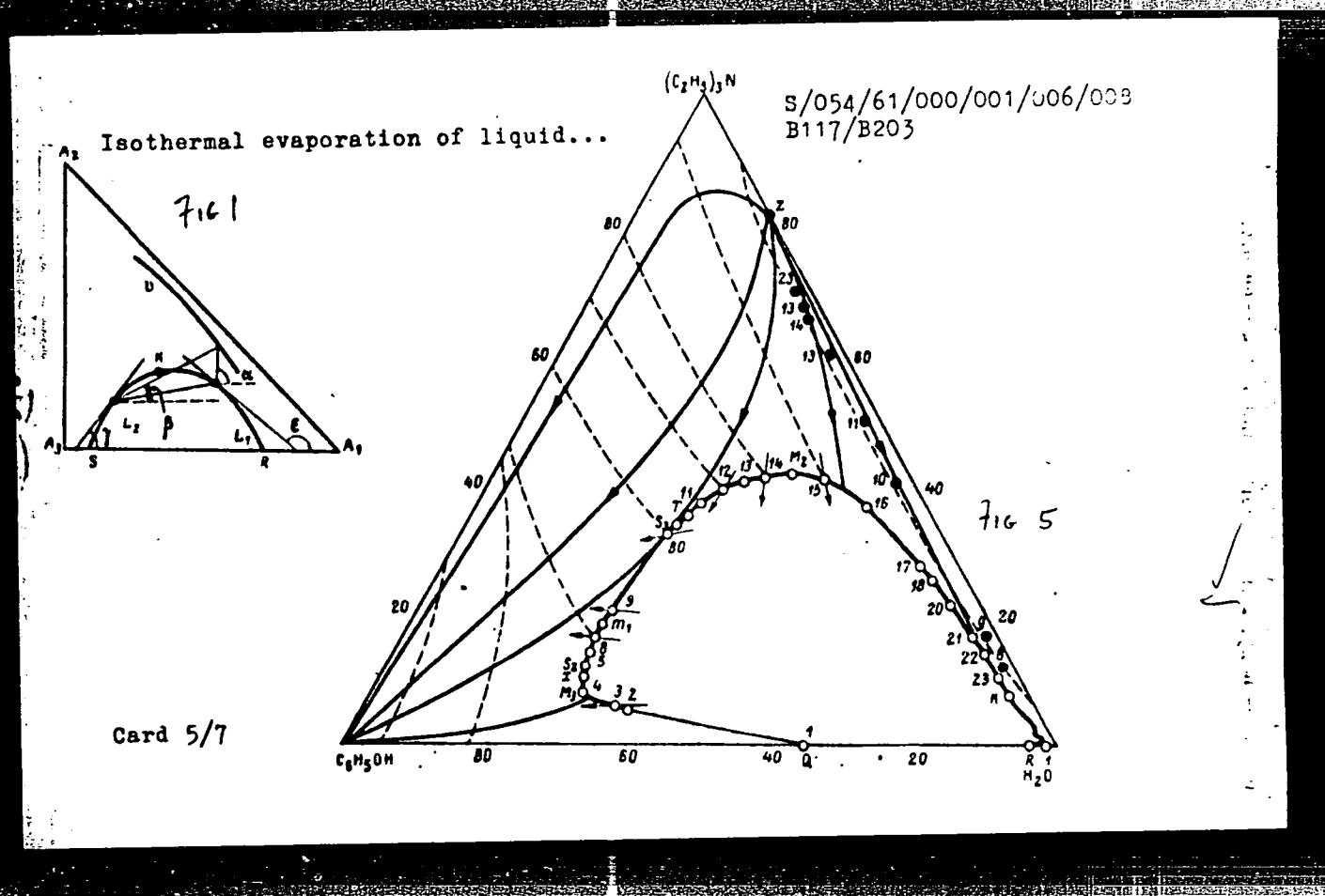
Card 3/7

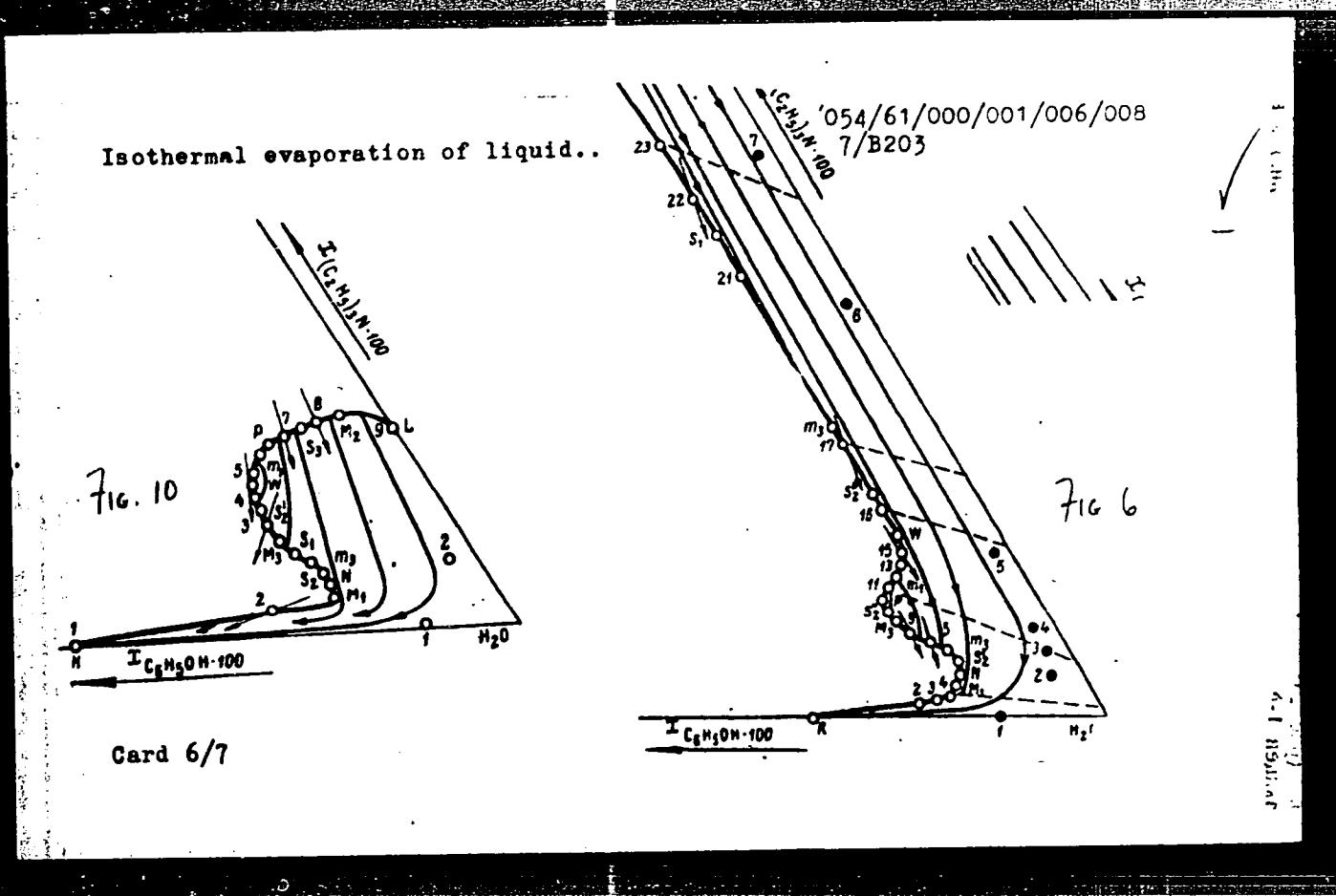
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Isothermal evaporation of liquid....

The formulas (19)-(22) comprise all possible cases of evaporation of liquid phases if the three-phase equilibrium is not disturbed. If the experimental data do not correspond to these formulas, this proves that one of the phases will disappear during isothermal evaporation. The authors state that the lines of open evaporation of homogeneous solutions must begin at the point z and end at the vertex of the Gibbs triangle which corresponds to phenol. Besides, they must round the vertices corresponding to triethylamine and water. Figs. 5 and 6 schematically show the course of open evaporation curves in the system investigated at 15°C, and Figs. 9 and 10 at 35°C. There are 10 figures and 5 references: 3 Soviet-bloc and 2 non-Soviet-bloc.

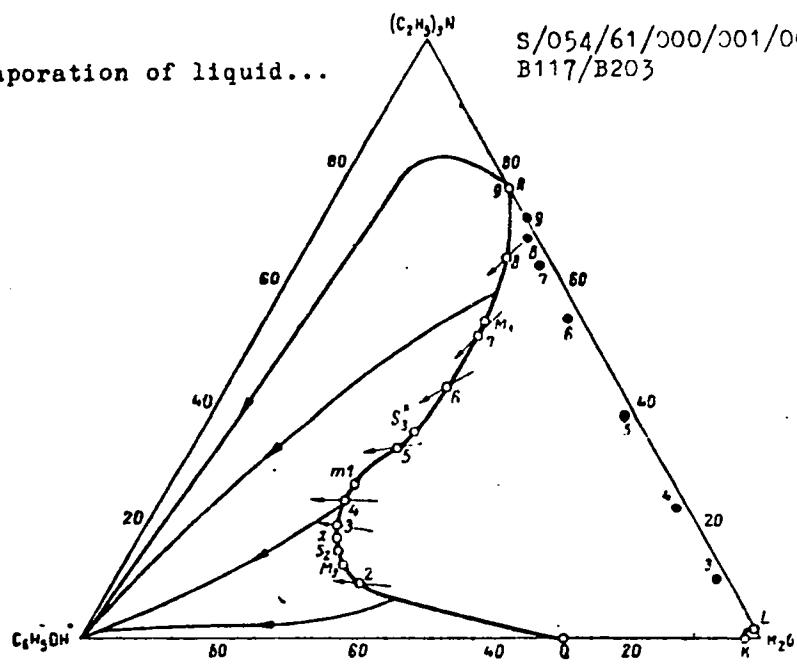
Card 4/7





Isothermal evaporation of liquid...

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FIG. 9.

5 (2)

AUTHORS: Storonkin, A. V., Rusanov, A. I.,
Markuzin, N. P. SOV/79-29-8-5/81

TITLE: On the Equilibrium "Liquid - Liquid" in Three-component Systems

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 8, pp 2480 - 2485
(USSR)

ABSTRACT: Many papers have hitherto described the equilibrium between two liquids in ternary systems. However, only few of these papers dealt with the thermodynamic standpoint. The empirical mathematical interrelationships and peculiarities observed in the equilibrium diagrams were in most cases discussed with respect to two liquids in ternary systems without the aid of thermodynamics. The rules set up by Krupatkin (Ref 5) and Tarasenkov are discussed in this connection. In the present paper, the authors attempted to fill this gap and to complete and define the existing results. It was attempted to solve the following problems mathematically and by means of diagrams in a demonstrative manner: (1) The course of the isothermal-isobaric lines for the coexistence of two liquid phases in the three-component system (Fig 1); (2) The grouping of the nodes in the concentration diagram (Fig 2). The results of investi-

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On the Equilibrium "Liquid - Liquid" in Three-component Systems

SOV/79-29-8-5/81

gation offered the following rule: if the content of one of the components of the three-component system is equal in the coexistent phases, the chemical potentials of the two other components change by equal values as they move along the isothermal isobar of the coexistent phases. V. F. Alekseyev's rule for binary systems holds also near the critical point of the ternary system. There are 2 figures and 13 references, 11 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: July 14, 1958

Card 2/2

5(4)

SCV/76-37-2-7/45

AUTHORS:

Storonkin, A. V., Markuzin, N. P.

TITLE:

The Shape of the Isotherm for the Separation of the Ternary Solution Triethylamine-Phenol-Water at 15 and 35°C (O forme izoterm rasslaivaniya troynogo rastvora trietilamin-fenol-voda dlya 15 i 35°C)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 2,
pp 279 - 287 (USSR)

ABSTRACT:

It has previously been shown (Refs 1,2) that a definite relationship exists between the shape of the solubility isotherms of ternary systems and the size of the phase effect, which characterizes the effect of the change in composition of the solution (according to the nodes) upon the chemical potential of the components. Commenting on the data of Seidel (Seydel)(Ref 4) Frensiz states that the appearance of an S-shaped isotherm can be attributed to the separation of ternary solutions onto impurities. According to the data of Meerburg (Ref 5) the binodes of the system mentioned in the title possess S-shaped sections and these were investigated in the work reported here. The concentration of the

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The Shape of the Isotherm for the Separation of the SOV/76-33-2-7/45
Ternary Solution Triethylamine-Phenol-Water at 15 and 35°C

triethylamine was determined by a titration method of Koppeschaar (Koppeshaar)(Ref 6) and from this the phenol was found. The method of the partial pressures of the components was previously described (Ref 7). The results of the determination of the liquid-liquid equilibrium for the system $(C_2H_5)_3N-C_6H_5OH-H_2O$ at 15 and 35°C are tabulated (Tables 1,2),

as are the values for the partial and total pressures of the homogeneous solutions of this system (Tables 3,4). On the basis of three theories of the phase effect (Ref 3) the S-shaped portion of the separation isotherm for 15°C (Fig 2) is explained, and it is found that the reason for it is not the admixtures present, but the particular properties of the reactions of the components of the solution. This reason holds for the isotherms at 35°C also (Fig 3)(Table 4). There are 5 figures, 4 tables, and 11 references, 5 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova
(Leningrad State University imeni A. A. Zhdanov)

SUBMITTED: June 25, 1957
Card 2/2

5(4)

SOV/76-33-3-12/41

AUTHORS: Storonkin, A. V., Markuzin, N. P.

TITLE: Investigation of the Total and Partial Vapor Pressures of the 35°C Separating Ternary Solution of Triethylamine-Phenol-Water at 15 and, (Issledovaniye obshchego i partsial'nykh davleniy para komponentov troynogo rasslaivayushchegosya rastvora trietylamin-fenol-voda pri 15° i 35°C)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 3, pp 581 - 588 (US R)

ABSTRACT: Experimental results are given concerning the investigations of the equilibrium liquid - liquid - vapor in the system $(C_2H_5)_3N-C_6H_5OH-H_2O$ at 15 and 35°. The results were explained on the basis of a certain consideration of the three-phase equilibrium. The experimental technique was already described (Ref 5). The experimental results obtained (Table 1, Fig 1) show that the values of the partial pressure of water are in several cases higher than the steam pressure of pure water which fact is considered to be due to the formation of vaporous triethylamine compounds with water (Ref 6). In connection

Card 1/2

Investigation of the Total and Partial Vapor Pressures of SOV/76-33-1-12/41
the Separating Ternary Solution of Triethylamine-Phenol-Water at 15 and 35°C

with the increase of the molar ratio of $(C_2H_5)_3N$ it is found that its partial pressure is bound to rise constantly in the water-phase, while the partial pressure of C_6H_5OH is bound to fall. To begin with, the partial pressure of water will increase in this case, then fall until a certain point is reached and then remain constant. The experimental data achieved are in good qualitative agreement with the given descriptions. There are 5 figures, 2 tables and 6 Soviet references.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova
(Leningrad State University imeni A. A. Zhdanov)

SUBMITTED: June 25, 1957

Card 2/2

STORONKIN, A.V.; MARKUZIN, N.P.

Isothermal evaporation of the liquid phases in the system
 $(C_2H_5)_3N - C_6H_5OH - H_2O$ at 135 C. Vest. LGU 16 no.4:75-86
'61. (MIRA 14:3)

(Phase rule and equilibrium)
(Evaporation)

MARKUZIN, N.P.

Liquid - vapor and liquid - liquid equilibria in binary and
ternary systems formed by sec. butyl alcohol, isobutyric acid, and
water. Vest. LGU 16 no.4:148-151 '61. (MIRA 14:3)
(Butyl alcohol) (Isobutyric acid) (Phase rule and equilibrium)

MARKUZIN, N.P.

Relationships between phase effect values of the isothermal-isobaric layering in ternary liquid solutions. Vest.LGU 16 no.10:
87-93 '61. (MIRA 14:5)
(Phase rule and equilibrium)

MARKUZIN, N.P.

Shape of the curves of thermodynamic simplification near the
isotherms of the stratification of ternary solutions. Vest
LGU 16 no.16:77-84 '61. (MIRA 14:8)
(Solution(Chemistry))
(Phase rule and equilibrium)

MARKUZIN, N.P.

Course of the lines of the constant partial pressures of components
near the binodal curve and the curve of the vapor composition of
ternary solutions separating into layers. Vest LGU 16 no.22:78-83
'61. (MiRA 14:11)

(Phase rule and equilibrium)

MARKUZIN, N.P.

Liquie-vapor equilibrium in the systems triethylamine - phenol
and phenol - water at 15°C. Zhur. prikl. khim. 34 no.5:1175-
1176 My '61. (MIRA 16:8)

(Triethylamine) (Phenol)

MARKUZIN, N.P.

Isotherm-isobar course of concomitant liquid and vapor near the
binodal curve and the curve of vapor compositions of ternary
demixing solutions. Vest. LGU 17 no.4:90-95 '62. (MIRA 15:3)
(Systems(Chemistry))

MARKUZIN, N.P.

Shape of lines representing the constant content of components in vapor near the isotherms of demixing of ternary solutions. Vest.
LGU 17 no.10:129-134 '62. (MIRA 15:5)
(Systems (Chemistry)) (Phase rule and equilibrium)

MARKUZIN, N.P.; NIKANOROVA, L.A.

Formation of the equilibrium regions involving three liquid
phases in ternary systems. Zhur.ob.khim. 32 no.11:3469-3473
N '62. (MIRA 15:11)

(Systems (Chemistry))
(Phase rule and equilibrium)

MARKUZIN, N.P.; PLEKHOTKIN, V.I. (Leningrad)

Concerning the existence of solubility in the system
ethylenediamine - benzene - n-hexane. Zhur. fiz. khim. 56
no.9:1973-1978 S '62. (MIT: 1746)

STORONKIN, A.V.; MARKUZIN, N.P.

Change in vapor composition during isothermal change in the
composition of demixing solutions. Zhur, fiz khim. 37 no.6:
1385-1388 Je '63. (MIRA 16:7)

1. Leningradskiy gosudarstvennyy universitet.
(Vapors) (Chemistry, Physical and theoretical)

MARKUZIN, N.P.; SHREYNER, L.S.

Liquid-liquid - vapor equilibrium in the system Propyl alcohol-diphenyl oxide - water at 25 . Zhur. prikl. khim. 37 no. 4:
888-889 Ap '64. (MIRA 17:5)

MARKUZIN, N.P.; PLEKHOTKIN, V.F.

Fugacities of the components in the system acetic acid -
triethylamine - carbon tetrachloride and its component
binary mixtures. Vest. LGU 19 no.16:162-164 '64.
(Miz. 16:11)

MARKUZIN, N.P.

Expressions for two derivatives of Gibbs thermodynamic potential in the variables of vapor composition and for multipliers in the differential of pressure in generalized van der Waals equation for three-component condensed phase - vapor systems in which the chemical reactions occur. Vest.LGU 20 no.22:87-95 '65. (MIRA 18:12)

MARKUZIN, N.P.

Relation between the values of aggregation constants and the
second virial coefficients. Zhur. fiz. khim. 39 no. 1:18(-181
Ja '65 (MIRA 10:1)

1. Leningradskiy Gosudarstvennyy universitet imeni A.A. Zhdanova.
Submitted December 17, 1963.

MARKUZON, Fedor Davidovich; PRIVEZENTSEVA, A.G., red.; SKULEVICH,
b.v.a., red.; VASIL'KOVA, Ye.V., tekhn. red.; IL'YUSHENKOVA,
T.Y., tekhn. red.

[Sanitation statistics in prerevolutionary Russia and in the
U.S.S.R.] Ocherki po sanitarnoi statistike v dorevoliutsionnoi
Rossii i v SSSR. Moskva, Gosstatizdat, TsSU SSSR, 1961. 129 p.
(Sanitation—Statistics) (MIRA 15:2)

MARKULON I.A.

SOKOLOVSKIY, V.V.; MARKULON, I.A.; TUMARKINA, N.A., tekhnicheskiy redaktor.

[Statics of an unstable medium] Statika sypuchei sredy. Izd. 2.,
perer. i dop. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1954.
274 p. (MLRA 7:10)

(Equilibrium) (Plasticity) (Soil mechanics)

107600

31636
S/207/61/000/006/011/025
A001/A101AUTHOR: Markuzon, I.A. (Moscow)

TITLE: The inverse problem of the theory of equilibrium cracks

PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 6, 1961,
93 - 98

TEXT: The author considers the problem of determining initial stresses in a body, arisen due to technological processes or heat treatment, from development of a brittle crack under the action of loads applied. This problem is named the inverse problem of the theory of cracks. The method recommended is a mechanical one consisting in making a cut in the body being examined and observing the change in the length l of this crack under the action of applied stresses the field of which is referred to as the controlled field of stresses varying in proportion to changes of parameter λ . An integral equation is derived for determining the function of initial stresses $p_0(x)$. The solution of this equation is reduced to Abel's equation, and the notion of determining function $r(l)$ is introduced which is defined as follows:

$$r(l) = \frac{\lambda(l) - \lambda_0(l)}{\lambda_0(l)}$$

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S/207/61/000/006/011/025
A001/A101

The inverse problem of the theory ...

the denominator being the function $\lambda(1)$ corresponding to the case of absence of initial stresses at the same controlled field. Then the function sought for of initial stresses acting along the x -axis will look as follows:

$$p_0(x) = -\frac{2}{\pi} \frac{K}{\sqrt{2}} \frac{d}{dx} \int_0^x \frac{\sqrt{1-r(l)} dl}{\sqrt{x^2 - l^2}} \quad (1.9)$$

where K is module of tenacity. The actual procedure for finding this function is considered for a particular case of the constant field of initial stresses and for the general case. Moreover, the case of a circular equilibrium crack of radius R , axial-symmetrical problem, is considered and analogous relations for the determining function $s(R)$ and the function of initial stresses $p_0(r)$ sought for are determined:

$$p_0(r) = -\frac{\sqrt{2}}{\pi} \frac{K}{r} \frac{d}{dr} \int_0^r \frac{R \sqrt{Rs(R)} dR}{\sqrt{r^2 - R^2}} \quad (4.7)$$

The author thanks G.I. Barenblatt for the suggestion of the problem and assistance. There are 3 figures and 3 Soviet-bloc references.

SUBMITTED: August 4, 1961

Card 2/2

MARKUZON, I.A. (Moskva)

Cleaving a brittle solid with a wedge of finite length. Prikl. mat.
i mekh. 25 no.2:356-361 Mr.-Ap '61. (MIRA 14:5)
(Deformations (Mechanics)) (Elasticity)

BAT', Moisey Iosifovich; DZHANELIDZE, Georgiy Yustinovich;
KEL'ZON Anatoliy Saulovich; MARKUZON, I.A., red.;
SHKLYAR, S.Ya., tekhn. red.

[Theoretical mechanics in examples and problems] Teore-
ticheskaiia mekhanika v primerakh i zadachakh. Izd.2., ispr.
Moskva, Fizmatgiz. Vol.1.[Statics and kinematics] Statika
i kinematika. 1963. 483 p. (MIRA 16:12)
(Statics) (Kinematics)

MARKUZON, I.A. (Moskva)

Crack in equilibrium in a strip of finite width. PMTF no.5:69-
76 S-0 '63. (MIRA 16:11)

MARKUZON, V.D., prof.; Prinimali uchastiye: Kogan, E.S.; LEVI, R.I.

Seventieth anniversary of the First Children's Tuberculosis (formerly Olginskaya) Hospital, 1887-1957. Pediatriia 37 no.8:19-24 Ag '59.

(MIRA 13:1)

1. Glavnnyy vrach l-y detskoy tuberkuleznoy (byvshey Ol'ginskoy) bol'nitsy (for Kogan). 2. Zaveduyushchiy podrostkovym otdeleniyem l-y detskoy tuberkuleznoy (byvshey Ol'ginskoy) bol'nitsy (for Levi).

(HOSPITALS)

ARKHIPOVA, O.P., kand. biol. nauk; BERLIN, P.Yu., prof.; VOROB'YEV, S.I.,
kand. med. nauk; ZASLAVSKIY, I.D., kand. med. nauk; KUDRYAVTSEVA,
A.I., prof.[deceased]; LAPINA, A.I.; MARKUZON, V.D., prof.; MASSINO,
S.V., prof.; NEZLIN, S.Ye., prof.; OYFERBAKH, M.I., prof.; POMEL'TSOV,
K.V., prof.; RABUKHIN, A.Ye., zasl. deyatel' nauki RSFSR, prov.;
ROL'YE, Z.Yu., zasl. deyatel' nauki RSFSR, prof.; SORKINA E.Z.,
doktor med. nauk; FILIMONOV, N.I., kand. med. nauk [deceased];
YUSKOVETS, M.K., zasl. deyatel' nauki Belorusskoy SSR, prof., akademik;
EVNIS, V.L., zasl. deyatel' nauki RSFSR, prof., otv. red.;
LYUDKOVSKAYA, N.I., tekhn. red.

[Multivolume manual on tuberculosis] Mnogotomnoe rukovodstvo po
tuberkulezu. Otv. red. V.L.Einis. Moskva, Medgiz. Vol.4.
[Epidemiology and the organization of the control of tuberculosis]
Epidemiologija i organizatsija bor'by s tuberkulezom. Red. toma
A.I.Lapina i S.V.Massino. 1962. 524 p. (MIRA 15:6)

1. Akademiya nauk Belorusskoy SSSR i Akademiya sel'skokhozyaystven-
nykh nauk Belorusskoy SSSR (for Yuskovets).
(TUBERCULOSIS)

L 17535-66 EWT(d)/EWT(l)/ETC(f)/EPF(n)-2/EWG(m) IJP(c) WW/AT
ACC. NR.: AP6006794 SOURCE CODE: UR/0386/66/003/001/0012/0014

AUTHOR: Kulagin, S. G.; Likhachev, V. M.; Markuzon, Ye. V.; Rabinovich, M. S.; Sutovskiy, V. M. 75

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy Institut Akademii nauk SSSR) 72 B

TITLE: States with inverse population in a pinched discharge

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniya, v. 3, no. 1, 1966, 12-14

TOPIC TAGS: discharge plasma, plasma pinch, stimulated emission, laser R and D, gas laser, argon

ABSTRACT: The authors show that states with a negative temperature exist in a pinched discharge plasma. This phenomenon is demonstrated by a pulse of stimulated emission which coincides with the moment of pile-up. An installation for generating currents up to 15 KA with a discharge period of 2.5 usec was used in the experiments. The quartz discharge tube was 100 cm long and 2.5 cm in diameter. Annular 21445

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L 17535-66

ACC NR: AP6006794

3

copper electrodes were used with an internal diameter of 2.5 cm. The optical resonator was made up of two spherical dielectric mirrors. The coefficients of reflection for the mirrors in the emission zone were 90 and 45%. Condensers with a capacitance of 0.1, 0.4 and 2.5 μ f and a voltage of 20-30 kv were used as the power source. The working gas was spectrally pure argon at a pressure of 10^{-2} mm Hg. A curve is given showing the intensity of stimulated emission as a function of pressure. Emission is observed on the 4765 Å line of singly ionized argon at pressures from $9 \cdot 10^{-3}$ - $3 \cdot 10^{-2}$ mm Hg. This is also the best pressure range for generation of a pinch discharge. Experiments were done at a pressure of $1.25 \cdot 10^{-2}$ mm Hg which corresponds to the maximum intensity. The photoelectric method was used for recording the emission pulse. Emission lags 0.2 usec behind the current and lasts for 0.2 usec. Emission power at the maximum is 20-25 kw. Calculations show that the emission pulse corresponds approximately with the time of discharge compression. "The authors thank corresponding member AN SSSR A. M. Prokhorov for interest in the work and useful consultation and also laboratory workers N. R. Bedilov and Yu. K. Dmitriev for assistance in carrying out the experiment." Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 11Nov65/ ATD PRESS: ✓ 2 //

[14]

Card 2/2

MARKVARDE, M.M.

Roentgenological indications of the motor-evacuatory function of
the gallbladder in patients with resected stomach. Vest. rent.
1 rad. 35 no. 5:25-29 S-0 '60. (MIRA 13:12)

1. Iz kafedry rentgenologii (zav. - prof. B.M. Sosina) Belorusskogo
instituta usovershenstvovaniya vrachey (dir. - dotsent N.F.
Pavlov).

(STOMACH—SURGERY) (GALL BLADDER)

MARKVARDE, M.M.

Clinical roentgenological parallels in some disorders following Billroth's No.2 resection of the stomach at long intervals. Vestei AN BSSR Ser. bial. nav. no. 2879-83 '63
(MTRA 17:3)

MARKVARDE, M.M. (Minsk)

Motor-evacuatory function of the gallbladder following resection
of the stomach under experimental conditions. Pat. fiziol. i
eksp. terap. 7 no. 3245-50 My-Je'63 (MIRA 17:4)

1. Iz kafedry rentgenologii (zav. - prof. B.M. Sosina Belo-
russkogo instituta usovershenstvovaniya vrachey.

3A
Ext. 8

Traction. Electric.
Brake

621.333

3347. The optimum characteristics of a traction motor. G. G. MARYANOV AND P. N. SULYAKINTO. Elektrosvjaz, No. 2, 52-5 (1952) In Russian.

A discussion of the design of traction generators according to either the (P_v - const.) or to the (P_v - const.) characteristics, and a criticism of views on this point propagated in some recent Soviet textbooks. Motors with a falling characteristic will have a great advantage over those designed for constant speed and will, above all, be more economic. The principle of designing a motor for the maximum gradient to be overcome must not be carried too far, because the economic efficiency of the motor would be likely to suffer if the motor were fully utilized only on steep gradients. On the other hand, it is clear that a sufficient power reserve must always be available, but this is not difficult to obtain when the design principle described is adopted.

B. F. KRAUS

CAND. TECH. SCI., MEMIIT

MARKVARDT, G.G., dotsent, kandidat tekhnicheskikh nauk.

Simplified derivation of load formulas for substations and feeders
and power loss formulas for contact networks. Trudy MGIIT no.63:
27-38 '53.
(Electric railroads)

MARKVARDT, G.G., dotsent, kandidat tekhnicheskikh nauk.

Calculation of loads for traction power substations allowing for
external characteristics. Trudy MEMIIT no.63:39-64 '53. (MLRA 7:12)
(Electric railroads--Substations)

AID P - 2822

Subject : USSR/Electricity
Card 1/2 Pub. 27 - 11/30
Author : Markvardt, G. G., Kand. of Tech. Sci., Dotsent Moscow
Title : Calculation of stray currents in underground structures
Periodical : Elektrichestvo, 6, 59-65, Je 1955
Abstract : The author devotes his article to the study of the flow of stray currents in earth and in underground structures. He develops a differential equation to express the potential in underground structures, assuming that no field distortion exists in earth currents caused by underground structures. Further he develops equations for currents in the structures as well as for potentials between the structures and the earth. This permits finding the density of the current flowing into the structures. Forms are developed for the average value of the density of the leakage current flowing from the structures expressed

AID P - 2822

Elektrichestvo, 6, 59-65, Je 1955

Card 2/2 Pub. 27 - 11/30

in terms of power consumption for the train movement
as well as for its distribution between substations.
Seven diagrams, 8 references (6 Soviet) (1932-1948).

Institution : Moscow Institute of Railroad Transportation Engineers

Submitted : D 10, 1954

MARKWARDT, G.G., detsent.

Approximate determination of the efficiency of train current during
the use of recuperative braking. Tekh.shel.dor.15 no.4:19-20 Je '56.
(MLRA 9:9)

1.Vsesoyuznyy zaochnyy institut inzhenerov zheleznychnego trans-
porta.
(Electric railroads--Brakes)

MARKEVARDT, G.G., dozent, kandidat tekhnicheskikh nauk.

Effect of the voltage level on utilization of a train's kinetic forces
in ascending grades. Trudy MIIT no.90/13:81-101 '56. (MLRA 10:4)
(Electric railroads)

MARKEVARDT, O.G., dotsent, kandidat tekhnicheskikh nauk; PUPYIN, V.N., kandidat
tekhnicheskikh nauk.

Impulse relay protection from short-circuit currents in contact wires.
(MLRA 10:4)
Trudy MIIT no.90/13:122-139 '56.
(Electric relays) (Electric railroads)

KREST'YANOV, M.Ye., dotsent, kandidat tekhnicheskikh nauk; MARKVARDT, G.G.,
dotsent, kandidat tekhnicheskikh nauk.

Calculating maximum loads for d.c. feeders of subway substations.
Trudy MIIT no.90/13:162-180 '56. (MLRA 10:4)
(Electric railroads--Substations)

MARKEVARDT, G.G., dotsent, kandidat tekhnicheskikh nauk; BESKOV, B.A., inzhener.

Engineering models for calculating electric railroads. Trudy MIIT
no.90/13:192-222 '56. (MLRA 10:4)
(Electric railroads) (Engineering models)
(Electronic calculating machines)

Markhardt, G.G., Doc Tech Ser — (us) "Certain systems of operating electrified railroads and the methods of planning them." Moscow, 1957. 41 pp (Min of Railroads USSR. (Moscow Stalin Inst of RR Engineers), 110 copies (KL, No 39, 1957)

MARKVARDT

MARKVARDT, G.G.

G.G.

dots., kand. tekhn. nauk.

Determining excess recuperation power. Trudy MIIT no. 96:129-167
'57. (MIRA 11:1)
(Electric railroads)

MARKWARDT, G.G., dets., kand. tekhn. nauk; ROTANOV, N.A., kand. tekhn. nauk.

System of automatic control and operational stabilization of
d.c. and a.c. electric railway meters. Trudy MIIT no.103:109-122
'58. (MIRA 11:12)

(Electric railway meters)

MARKWARDT, G.G., dotsent, kand.tekhn.nauk; PROSKURNIN, V.G., red.;
KLEYMAN, L.O., tekhn.red.

[Using modeling for the design and study of electric railroads;
lecture on "Electric power supply for electric railroads" for
students of the fifth and sixth courses specializing in "Electri-
fication of railroad transportation"] Primenenie modelirovaniia
dlia raschetov i issledovaniia elektricheskikh zheleznykh dorog;
lektsii po discipline "Energosnabzhenie elektricheskikh zhe-
leznykh dorog" dlia studentov V i VI kursov spetsial'nosti
"Elektrifikatsiya zheleznodorozhного transporta." Moskva, M-vo
putei soobshcheniya. Vses.zaochnyi in-t inzhenerov zhel-dor.
transporta, 1959. 27 p. (MIRA 13:5)

(Electromechanical analogies)
(Electric railroads--Current supply)

MARKVARDT, G.G., dotsent, kand.tekhn.nauk

~~Effect of power supply system parameters on density of outfeed current from underground structures. Trudy MIIT no.104:205-213 '59.~~
(MIRA 12:9)
(Electric currents)